APPENDIX.

Internal Revenue Code:

Sec. 23. Deductions From Gross Income.

In computing net income there shall be allowed as deductions:

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(1) Depreciation.—A reasonable allowance for the exhaustion, wear and tear of property used in the trade or business, including a reasonable allowance for obsolescence.

Treasury Regulation 103, promulgated under the Internal Revenue Code:

Sec. 19.23 (1)–6. Obsolescence. — With respect to physical property the whole or any portion of which is clearly shown by the taxpayer as being affected by economic conditions that will result in its being abandoned at a future date prior to the end of its normal useful life, so that depreciation deductions alone are insufficient to return the cost or other basis at the end of its economic term of usefulness, a reasonable deduction for obsolescence, in addition to depreciation, may be allowed in accordance with the facts obtaining with respect to each item of property concerning which a claim for obsolescence is made. No deduction for obsolescence will be permitted merely because, in the opinion of a taxpayer, the property may become obsolete at some later date. This allowance will be confined to such portion of the property on which obsolescence is definitely shown to be sustained and cannot be held applicable to an entire property unless all portions thereof are affected by the conditions to which obsolescence is found to be due.

Bulletin "F", revised January, 1942, issued by the Treasury Department, pp. 1-3:

Depreciation—Obsolescence—Definitions.

The Federal income tax in general is based upon net income of a specified period designated as the taxable year. The production of net income usually involves the use of capital assets which wear out, become exhausted, or are consumed in such use. The wearing out, exhaustion, or consumption usually is gradual, extending over a period of years. It is ordinarily called depreciation, and the period over which it extends is the normal useful life of the asset.

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The factors of wear and tear and decay cause physical exhaustion, or deterioration, ultimately resulting in retirement of the property, while those retirements due to obsolescence are caused by forces ordinarily unrelated to physical condition.

Obsolescence may be defined as the process of becoming obsolete due to progress of the arts and sciences, changed economic conditions, legislation, or otherwise, which ultimately results in the retirement or other disposition of property. As said by the Supreme Court in United States Cartridge Co. v. United States (1932) (281 U. S. 511, 516, Ct. D. 460, C. B. XI-I, 282, 283 (1932)), "Obsolescence may arise from changes in the art, shifting of business centers, loss of trade, inadequacy, supersession, prohibitory laws and others things which, apart from physical deterioration, operate to cause plant elements or the plant as a whole to suffer diminution in value."

With respect to any property for which past experience indicates a gradual lessening of useful value due to inadequacy or obsolescence and when the effects of such factors can be expected to continue without substantial variation, the annual diminution in useful value is considered ordinary or normal obsolescence to be included in depreciation. Much of the discussion

hereinafter having specific reference to depreciation only is in fact equally applicable to normal obsolescence.

Some property, however, may become obsolete or inadequate due to revolutionary or radical changes unforeseen and unpredictable by their nature when the property was acquired. To distinguish from the allowance for what is considered normal obsolescence, this type is usually termed extraordinary or special obsolescence, allowances for which will be dealt with more specifically hereinafter.

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Probable Useful Life—Rates of Depreciation and Obsolescence.

In general.—The amount of the annual deduction allowable for depreciation is ordinarily dependent upon the expected useful life of the asset. The factors which determine the useful life of property in a trade or business have already been discussed briefly in the Introduction. These factors are wear and tear and decay or decline from natural causes; and also various forms of obsolescence attributable to the normal progress of the art, economic changes, inventions, and inadequacy to the growing needs of the trade or business. Two principal forms or types of obsolescence are generally recognized, that is, normal obsolescence and extraordinary or special obsolescence.

Normal obsolescence is caused by factors which can be anticipated with substantially the same degree of accuracy as other ordinary depreciation factors, such as wear and tear, corrosion or decay. Accordingly, it is included in estimating the normal useful life of depreciable property, the effect of which is to include the allowance for normal obsolescence in the depreciation deduction.

Extraordinary or special obsolescence rarely can be predicted prior to its occurrence. However, this does not necessarily imply that the asset already must have been completely discarded or become useless, but

merely that a point has been reached where it can be definitely predicted that its use for its present purpose will be discontinued at a certain future date. Deductions for obsolescence of this type may be taken over the period beginning with the time such obsolescence is apparent and ending with the time the property will become obsolete.

EXCERPTS FROM "FINANCIAL POLICY OF CORPORATIONS" BY DEWING (FOURTH ED., VOL. I).

CHAPTER 3.

Obsolescence.[a]

The Maintenance of Capital in a Changing Economic World.—Great care has been exercised in the preceding chapter to confine our attention to depreciation—**the recovery of the original cost of the investment in permanent property of the business through regular allowances out of the gross earnings of the years during which the permanent property helps to provide the earnings.** But these charges are based on two assumptions—that the owners of the corporation desire to have their original investment returned to them in cash and that the economic conditions under which the earnings are produced do not change. Under the realistic conditions of modern corporate enterprise neither one of these assumptions is true. The proprietors of the business do not ordinarily want the return of their investment in the form of cash; they want the continuing earning power of their investment. This can be brought about only if the depreciation allowances are

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[a] In an earlier edition of this book obsolescence was included as one of the elements of depreciation. Following certain traditions it was called functional depreciation.[1] Much reflection and the impact of some of the lessons of a long-continued depression have led me to change my mind. I now feel that the previous inclusion of obsolescence within the allowance for depreciation was wrong—wrong in theory, wrong in practice and wrong in the light of a complete and incisive disclosure to the corporations' stockholders. Like all converts, I feel this decisively and without reservation. Many of the things, observed during this depression, have strengthened my conviction. Not the least of these has been the realization that a great steel company—conspicuous since its organization for its frank and honest statements to its shareholders— could not have overstated its net earnings for upward of a decade by disregarded obsolescence had the company made annual allowance for obsolescence independent of the provision for depreciation.

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[1] Edition of 1934, p. 519.

reinvested in new means of production. The economic conditions under which the business operates are not changeless, static; they suffer change continuously through inventions and advances in the arts and through fluctuating price levels which predetermine varying money-costs for new property. Since these conditions exist, the maintenance of the original investment is not achieved by merely writing off, through successive earning periods, the money cost of the original investment; it is achieved only if the wearing and the aging parts of the permanent property are gradually replaced by new equipment having an equal or greater earning power.

The presumption that depreciation allowances can adequately maintain the original investment assumes the operation of the business in a static economic world. **To insure its maintenance in a dynamic world a supplementary allowance or adjustment to earnings must be made which refers forward to the probable future costs of replacements and not backward to the original costs of the investment.**[b] This supplementary allowance takes full cognizance of a changing economic scene—inventions, new processes, new methods of distribution, new tastes of the consuming public. It also takes full cognizance of a changing level of prices which may necessitate the payment of higher money costs for equivalent replacements by producers' goods of the same earning capacity. This supplementary allowance set

[b] In a footnote Saliers states: "Much accounting literature, including the Treasury Regulations, infer that both depreciation and obsolescence may be operative at the same time. This is impossible, since one or the other is greater, and the greater can be the only effective cost." [2] Such a statement represents a complete misconception of obsolescence. Not only may depreciation and obsolescence operate together, but they invariably do operate together. They represent different costs arising from the effect of the passage of time on the permanent property of a going business. One is the cost of the using of capital already invested; the other is the cost of substituting for the aging capital improved and efficient replacements. And the earnings of the income period must bear both costs if the earning capacity of the capital invested in the business is to be kept intact.

2 Saliers, E. A., Depreciation (3d ed. 1939) 279.

aside to preserve the earning capacity of capital goods by means of adequate replacements is called obsolescence.[c]

The original investment was made for the primary purpose of making profits. The maintenance of the original investment is not the maintenance of either the physical totality of the property comprising this investment nor its value as evidenced by its earning capacity. **The maintenance of the original investment is the preservation of its earning power.** And to insure the maintenance of this earning power, there must be continuously, the replacement of obsolete and outmoded equipment by new and more efficient equipment; and the replacement costs of this improved and more efficient equipment is a burden, in addition to depreciation, which the continuing business must bear in order to hold its competitive position in the industry.

Due to the fact that replacements will occur probably before the age and use-life of the original investment have

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[c] Obsolescence has been variously defined. Perhaps the best single definition: **"Obsolescence is that which is brought about by the progress of the arts and sciences, changed economic conditions, legislation, or otherwise, whereby it can be predicted with reasonable accuracy that property used in the trade or business will be useless at a definite future date prior to the expiration of the normal useful life of the property."** [3] This is an excellent definition. But it is most unfortunate that, in spite of a clear understanding of the nature of obsolescence, the Internal Revenue Department considers obsolescence as a part of depreciation and not an independent and distinguishable charge against earnings.[4] The whole purpose of this chapter is—while accepting the meaning if not exactly the wording of the department's definition of obsolescence—to plead for a differentiation between depreciation and obsolescence. Much lazy thinking and many questionable practices among accountants have resulted from attempts to throw all charges against earnings into a single basket —and to call this basket depreciation. Saliers' well-known work on Depreciation is seriously affected by this attempt to merge obsolescence with depreciation.[5]

One engineer, considering depreciation and obsolescence from the point of view of utility rate valuation, hazards the opinion that the word "obsoleteness" more nearly fits the facts than does "obsolescence." [6] On the basis of its Latin origin, "obsolescence" implies a continuous process; the cause or causes underlying the decline in the use-value of physical property are discontinuous. This idea is better expressed by the word "obsoleteness."

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[3] United States Internal Revenue Bulletin — Income Tax Service (1931), Bull. F, p. 2.

[4] For discussion of Internal Revenue attitude toward obsolescence, see Saliers, op. cit. supra note 2, Ch. 19, p. 276.

[5] Id. at 48.

[6] Scharff, M. R., Depreciation of Public Utility Property (1941) 70.

been fully recovered through the allowances for depreciation, these supplementary allowances for obsolescence can be counted on to provide for the increased costs of the new equipment. These increases in cost may be due to the fact that more valuable and more costly equipment must be procured in order to enable the corporation to operate as cheaply and as efficiently as its competitors, or they may be due to a general rise in the price level of all commodities, or they may be due to a combination of these and other causes. The causes are, for the moment, ignored; the outstanding fact is simply this — the accumulations arising from the gradual writing off of the original capital are insufficient, even though they were kept in funds ready for investment, to buy such new equipment as the management deems necessary to maintain unimpaired the corporation's competitive position in the industry. These additional allowances, made necessary by advance in the arts or by a rising level of prices or by both, have absolutely nothing to do with the recovery, through earnings, of the original cost of the permanent property of the business. They are concerned with replacement. They are concerned with the new cost of the kind of equipment the management deems necessary to meet the technical conditions prevailing in the industry at the time the replacements are made.[d]

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[d] It is quite common to acknowledge that depreciation and obsolescence represent charges against income due, in theory at least, to different causes. The whole purpose of this chapter is a plea for their separation in accounting practice.

Frequently, in financial statements, the charges against income are all lumped together as "depreciation"; sometimes the charges are called "depreciation, including obsolescence" as if the accountant condescended to do lip service to the distinction, without facing the obligation to discriminate between the two in practice. Frequently, too, the attempt is made by writers to include obsolescence with depreciation by calling it functional depreciation; [7] and it has been called "theoretical depreciation." [8]

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[7] For example, Mason, P., Principles of Public-Utility Depreciation (1937) 2; Gilman, S., Accounting Concepts of Profits (1939) 499. Other writers on public utility accounting (L. R. Nash, for example) speak of functional depreciation as if they referred to obsolescence. The term is also used by the Interstate Commerce Commission, 180 I. C. C. 372 (1932); also Saliers, op. cit. supra note 2, at 46.

[8] Re Rates of the Public Service Gas Co. (N. J.), quoted Saliers, op. cit. supra note 2, at 50. See also Allison, J. E., In Re Theoretical Depreciation (1916) 29.

Importance of Obsolescence.—The importance of admitting possible obsolescence of equipment, due to the discovery of more improved, more efficient or more economical substitute equipment, is obvious to every business man

This throwing of all charges against earnings into one category—and calling it depreciation—has high authority. The wording of decisions of the United States Supreme Court: "Broadly speaking, depreciation is the loss, not restored by current maintenance, which is due to all the factors causing the ultimate retirement of the property. These factors embrace wear and tear, decay, inadequacy, and obsolescence." [9] On the other hand, in one important case, a court ruled that a dividend was illegal and recoverable from the stockholders, to whom it had been paid, because obsolescence of an interurban railway had not been deducted from apparent earnings. Had this been done, no surplus would have remained from which to pay dividends.[10] And in a street railway rate case the commission, observing that ordinary depreciation allowance did not cover obsolescence, permitted a rate of earnings adequate to permit the allowance for obsolescence.[11]

This confusion between depreciation and obsolescence is quite general. The Interstate Commerce Commission in an order said: "Wear and tear, obsolescence, inadequacy, etc., are all factors in depreciation." [12] The findings of utility commissions, statutes and the writings of accountants all afford innumerable examples of attempts to include under the heading depreciation the recovery of the cost of physical equipment and the provision for the replacement of equipment with equivalent or improved earning power.[13] The accountant emphasizes the recovery of cost, calling it depreciation, although he lugs in obsolescence "as one of the factors"; [14] the engineer emphasizes the replacement of efficient equipment to maintain earning power, although he acknowledges cost as a basis or one of the bases on which equipment is to be valued; and the economist insists that depreciation, in order adequately to replace outmoded equipment, must acknowledge the changing purchasing power of money and, therefore, the changes in the money cost of replacements due to economic conditions beyond the perspective of a single business. Depreciation cannot cover all these factors. And the effort to bring under a single caption, to be called depreciation, allowances to care for all these costs is illogical. It is misleading.

The attempt, as in the Lindheimer case,[15] to make depreciation mean all these things, merely frustrates any serious effort to bring accounts—the actual dollars-and-cents allowances of depreciation—into conformity with the pronouncements of the Supreme Court. I am clear that many

[9] Lindheimer v. Illinois Bell Tel. Co., 292 U. S. 151, at 167 (1934).

[10] Guaranty Trust Co. of N. Y. v. Grand Rapids, G. H. & M. Ry. Co., 7 F. Supp. 511 (1931).

[11] Milwaukee v. Milwaukee Electric Ry., 10 Wis. R. R. Comm. Rep. 1 (1912).

[12] Order dated July 28, 1931.

[13] The studies of the accountants and engineers of the American Telephone and Telegraph Company are among the most competent conducted under the auspices of a large industry. Yet in one important study, that of A. B. Crunden and D. R. Belcher, (1929) 8 Bell. Tel. Q. 259 (reprint, 23), obsolescence is merely one of the eleven causes of ordinary depreciation.

[14] The Accountants' Handbook (Paton, W. A., editor 1934) 579, lists seven "principal causes" for depreciation. One is obsolescence. Some of the others are specifically causes for obsolescence rather than causes for depreciation.

[15] For quotation, see supra note (d).

having any acquaintance with manufacturing processes. In a country like the United States, where methods of production undergo profound changes from generation to generation, it is a matter of ordinary empirical observation that **all kinds of productive machinery pass out of use before their actual physical life is closed.** And an acknowledgment of this fact is necessary to enable the business executive to preserve undiminished the earning power of his physical capital. In no other way can he produce his goods at costs as low as those of newer, competitive factories equipped with machinery of the more recent design. Consequently, in addition to the annual allowance necessary to recover the original cost of the permanent

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of the discrepancies in the literature dealing with so-called depreciation are due primarily to this confusion—in theory and in actual accounting procedure between the writing off of cost and the accumulation of the means to buy new, efficient replacements.

By no means all the accountants obscure the distinction between depreciation and obsolescence. Gilman [16] quotes an English periodical article as follows: "Depreciation is a direct and measureable charge against profits; . . . **obsolescence, on the other hand, is a sacrifice voluntarily or involuntarily incurred in an effort to maximise profits in the future.** The consequence of this distinction is that provision for the possibility of obsolescence ought to be made by withholding from distribution profits which have already been measured after the deduction of depreciation." [17] An American writer has said: "In recent years an attempt has been made in some instances definitely to separate depreciation and obsolescence. This tendency to separate these two sets of factors seems a logical and necessary one. . . . Depreciation is caused by the use of certain productive facilities in producing goods or services, **while obsolescence leads to the non-use of certain productive facilities.** The former implies the gradual **expiration** or consumption of productive power, while the latter implies the **abandonment of unused potential productive power."** [18]

One of the most incisive statements concerning obsolescence I have met with is from the pen of an eminent practicing accountant: "Obsolescence is one of the commonest and most typical of those losses which, although uncertain as to amount and time of incidence, are so nearly inevitable in industry and so important that every conservative executive desires to provide for them as best he can by anticipatory reserves." [19] This expresses, in a single sentence, what I have tried to say in a chapter. It was written in 1938; and the author must have had vividly before him the long-continued failure of the U. S. Steel Corporation to provide adequately for obsolescence and the shock to investment confidence when this adjustment was finally acknowledged.

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[16] Gilman, op. cit. supra note 7, at 499.

[17] (Sept. 1938) Accountants' Digest 16.

[18] Moyer, C. A., Economic Aspects of Fixed-Capital Obsolescence (Sept. 1939) 14 Acc. Rev. 285 and 286.

[19] May, G. O., Uniformity in Accounting (1938) 17 Harv. Bus. Rev. 1.

property, a supplementary allowance should be set aside to meet the cost involved in purchasing efficient machinery before the old has served its full term of use. **Obsolescence is the allowance for decline in economic productivity—an allowance out of earnings to maintain economic productivity.**

Granting that a building cost $100,000, that it has a useful life of fifty years if kept in repair, and if the corporation deducted $2,000 a year from its net earnings to compensate for the physical depreciation of the building, the corporation would meet the condition of gradually recovering the original cost out of the annual earnings during the life of the building. But the building was originally built for no other purpose than assisting in the corporation's business. During the ten years since it was built, changes in methods of construction or of manufacturing technique have rendered it useless for the original purpose. To assume that the apparent earnings have suffered a loss of only $20,000 during this ten-year period since the building was erected is pure fiction. The sole value of the building was to assist in production, for which purpose it had an original value of $100,000; but after ten years it has merely a scrap value, because it no longer contributes to this end. Clearly **it is this "value for the business," or "value as an agency of production," that gauges its true economic value.** It is this economic value which the business executive should be able to deduce from the figures of the accountant even though the building is carried at cost. Hence, the mere physical property depreciation allowance should have been augmented during the ten years by additional and clearly described allowances to register the decline in value for the specific purpose of the business.

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Alternatives to the Obsolescence Charge.—If a specific and direct allowance, to provide for early replacements

out of earnings, is not made against the net income of each year, one or the other of two alternatives is possible. Either the depreciation allowance can be made so large as to provide a fund from which to pay for the replacement of obsolete equipment; or else, unmindful of the probable need for replacement of outmoded equipment, the management may make a single huge charge to the surplus when the day comes to pay for these replacements.[q]

The first alternative is merely an attempt to obscure the facts—it is an attempt to do by indirection, and inaccurately, what could better be accomplished openly and with reasoned care by recognizing the obsolescence charge as distinct and separable from the depreciation charge. The second alternative is a species of deceit. During a period of years the net earnings are represented to be larger than they would be were the proper deductions for obsolescence allowed. Consequntly, due to these larger annual net earnings a larger earned surplus is accumulated than would be the case were the proper obsolescence allowances de-

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[q] There are, of course, two other possibilities—(1) The capitalization of the cost of the new equipment on the presumption that the capital of the corporation has been increased. But this presumption is untrue. The essential motive for replacement is to maintain the fundamental earning power of the corporation. The new equipment added to accomplish this purpose is not new capital—it is merely an instrument of production to maintain, unimpaired, the earning power of the old capital originally purchased.[30] (2) The charging of the total cost of the replacement to the earnings of the single year. This is a procedure which a "Statement"—one of the numerous "statements" offered by accountants these last ten years—of the American Accounting Association seems to suggest.[31] But the losses arising from the declining use-value of the equipment have been going on for years past. Is it not stark misrepresentation to charge the whole cost of these years of declining value to the one income period in which the replacements actually occur? And it is childish to try to correct a completed mistake by attempting to reconstruct the earning statements of the preceding years—as if repairing the lock on the stable door will bring back the stolen horse.

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[30] For further discussion of capitalization of losses, due to obsolescence, see Saliers, op. cit. supra note 2, at 134; Fleck, L. H., The Incidence of Abandonment Losses (June 1926), 1 Acc. Rev. 48. This author believes that the cost of replacing outmoded equipment may be capitalized if the reason for the replacement is clearly and obviously economy of operation.

[31] A Tentative Statement of Accounting Principles, etc., Am. Acc. Ass'n Postulate No. 8 (June 1936), 11 Acc. Rev. 189.

ducted each year. And the stockholders, the creditors and the public are led to believe that the net earnings are greater than the rapidly declining production value of the equipment warrants. Then, suddenly, out of a clear sky, the obsolete equipment is replaced and the cost charged to the accumulated surplus. This is merely the continued overstatement of earnings, then the correction of the mistake after the misrepresentation has, over long years, favorably affected the credit of the company.[r]

[r] This is not theory; it has one rather startling illustration. During a period of roughly ten years, from 1925 to 1934, the United States Steel Corporation reported net earnings, averaging approximately fifty million dollars a year. These net earnings purported to represent net earnings after an adequate allowance for depreciation; and the depreciation allowance was represented to include an ample allowance for obsolescenc. Then suddenly, in 1935, the accountants charged the accumulated earned surplus account with an enormous loss of approximately two hundred and seventy million dollars—over a quarter of a billion dollars. This charge was necessitated—in the words of the corporation—by the developments in the art and mechanics of steel making "which have operated to reduce the normally expected life of such facilities, and to changes in plant location based upon shifting markets and transportation facilities." These causes are exactly what we mean in this chapter by obsolescence. They are not what the accountants for the Steel Corporation call depreciation. And it is an insult to the intelligence of the investing public for the executives of the largest industrial enterprise in this country to pretend that their engineers and accountants could not appreciate and measure, with approximate accuracy, these obsolescence losses while they were occurring—during the ten years and more while the earnings were being overstated by exactly the amount of the final charge to obsolescence.[32]

[32] This incident discussed at some length: Hosmer, W. A., The Effect of Direct Charges to Surplus on the Measurement of Income (March 1938), 13 Acc. Rev. 34. Referred to Gilman, op. cit. supra note 7, at 542.